

CHEMICAL EMERGENCY PREVENTION & PLANNING



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US EPA Region 10

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CHEMICAL EMERGENCY PREVENTION & PLANNING

Newsletter

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The Bhopal Tragedy – 25 Years Ago



Union Carbide Bhopal Plant

One of the worst tragedies in the history of the process industries occurred 25 years ago. A highly toxic gas, Methyl Isocyanate (MIC), was released from a pesticide plant in Bhopal, India shortly after midnight on December 3, 1984. The number of fatalities may never be known, but estimates have been in the range of 2000-4000, with estimated injuries of 100,000 or more people. The International Medical Commission on Bhopal estimated that, as of 1994, more than 50,000 people remained partially or totally disabled as a result of exposure to MIC.

Bhopal was a reactive chemistry incident. MIC reacts exothermically with water. A MIC storage tank was contaminated with water, and the reaction generated heat and pressure causing a relief valve to open. Safety systems had been taken out of service without doing a management of change evaluation, or they were unable to deal with the release. Approximately 40 tons of highly toxic MIC was released into the community, exposing tens of thousands of people.



The abandoned Union Carbide Methyl Isocyanate (MIC) plant in Bhopal India

Do You Know?

- Reactive chemistry incidents continue to occur in the process industries. For example, on September 15, 2009, the US Chemical Safety and Hazard Investigation Board released a report on a runaway chemical reaction incident in Florida which killed 4 people and injured 32 (www.csb.gov).
- Material released from a relief valve, rupture disk, or other pressure relief device must discharge to a safe location or treatment system.
- Critical safety systems must always be properly maintained and fully operational.

What You Can Do

- Never become complacent about the hazards in your facility – remember what can go wrong!
- More than any other in the history of the chemical industry, this incident demonstrates why robust safety systems are critical when handling hazardous materials. This incident was also one of the driving forces which defined process safety management as we know it today.
- Understand the reactivity hazards of all materials in your process. Read the reactivity section of your MSDS's, fully understand all reactivity instructions in your operating procedures and be knowledgeable about why your safety systems (e.g. interlocks, relief devices, scrubbers) are there and how they work.
- If a material in your area reacts with water: 1) be cautious when washing equipment for maintenance or whenever a water hose is used, and 2) remember that compressed air may contain condensed water – be sure process air is free of water before blowing lines.

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Update Requirements for RMP

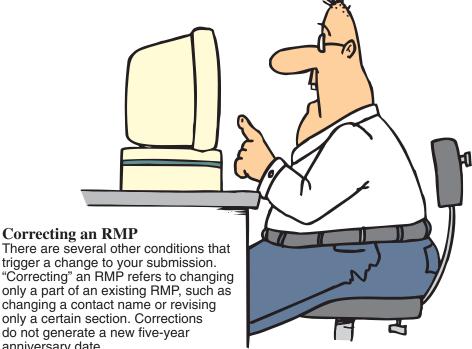
Many of you submitted a five-year update for the Risk Management Program to EPA this past year but do you know what other actions require you to update the RMP?

Re-Submissions

You must fully update your RMP for re-submission sooner than the fiveyear anniversary date, if any of the changes specified below occur [40 CFR 68.190(b)].

- Within 6 months of a change that alters the Program Level that applies to any covered process;
- Within 6 months of a change that requires a revised offsite consequence analysis - any change in processes, quantities stored or handled that might be expected to increase or decrease the distance to the endpoint by a factor of two or more:
- Within 6 months of a change that requires a revised PHA or hazard review. Update or revalidate your PHA whenever there is a new hazard or risk created by changes to your process. Such changes might include introducing a new process, process equipment, or regulated substance; altering process chemistry that results in any change to safe operating limits; or other alteration that introduces a new hazard:
- No later than the date on which a new regulated substance is first present in an already covered or in a new process above a threshold quantity:
- No later than 3 years after the date when a substance is first regulated by EPA.

Re-submissions change the five-year anniversary date which is the next update on your RMP. To re-submit, you must update all nine sections of your RMP.



only a certain section. Corrections

do not generate a new five-year anniversary date. Facilities who have complete RMPs in

the RMP*eSubmit system can make administrative corrections online. For more detailed information see the RMP*eSubmit User's Manual.

- Within 1 month of a change to emergency contact information. The name, phone number and email (if available) must be updated.
- Within 6 months of the date of a reportable chemical accident a report must be added to the RMP. Defined as an accident caused by a release of a regulated substance from a covered process causing death, injuries or significant property damage (on-site) and death, injuries, evacuation, shelter in place, or environmental damage off-site.

De-registration

If a stationary source is no longer subject to RMP regulation, the owner or operator shall submit a deregistration to EPA within 6 months indicating that the stationary source is no longer covered.

Our **web site** is a valuable resource for information on the Risk Management Program.

Where Do I Go For More Information?

http://www.epa.gov/emergencies/rmp will be updated as new information becomes available.

EPA maintains numerous listservs to keep the public, state and local officials, and industry up to date, including several that pertain to emergency management. You can sign up for our list serve to receive periodic updates: https://lists.epa.gov/read/all_forums/subscribe?name=callcenter_oswer

EPA Region 10 RMP Coordinator:

Javier Morales 206-553-1255

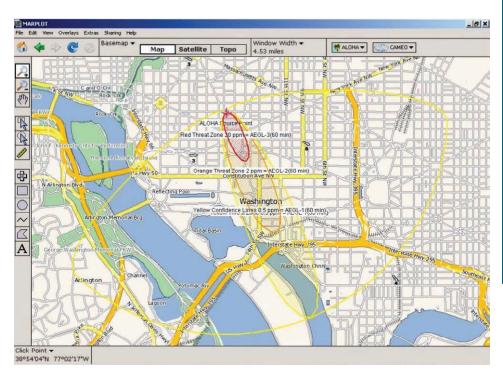
EPA Region 10 RMP Website: http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/rmp

Updates of CAMEO, MARPLOT and Tier2 Submit

New versions of CAMEO, MARPLOT and Tier2 Submit are now available

Download CAMEO 2.1 at http://www.epa.gov/emergencies/content/cameo/cameo.htm

Note: If you're upgrading to CAMEO 2.1 from a previous version of CAMEO, follow the instructions in the guidance document (provided on the download page) to ensure that you don't lose your current data.



What's changed in CAMEO 2.1?

- Added ability to include site plan files in CAMEO export files
- Improved interface for adding/ removing site plan files
- Updated to allow import of Tier2 Submit 2009 files
- Added support for Google's KML file type
 - Only for Facilities module
 - KML file includes facility names, addresses, lat/longs, and 24hour emergency contact phone numbers (using the data in your Facilities records)
 - Enlarged window contents to improve readability
 - For Windows users only
 - Turn this feature on/off using the Preferences menu item in the Edit menu
 - · Removed demo records
 - Fixed minor bugs

What's changed in MARPLOT 4.1.1 (for Windows)?

- Fixed a bug where circle objects weren't printed correctly
- Fixed a bug that kept aerial photos of Washington, D.C. from loading for the default Satellite layer
- Added population files for the U.S. territories

Download the Windows version at http://www.epa.gov/emergencies/content/cameo/marplot.htm

What's changed in MARPLOT 3.3.3.1 (for Macintosh)?

- Modified code so that it is compatible with Snow Leopard (OS X 10.6)
- Fixed a few minor bugs
 Download the Macintosh version at http://www.epa.gov/emergencies/ content/cameo/marplot_mac.htm

What's changed in Tier2 Submit 2009?

- · Added ability to view site plans
- Updated state-specific fields
- Fixed minor bugs

Download Tier2 Submit 2009 at http://www.epa.gov/emergencies/content/epcra/tier2.htm

Remember!

Tier II Chemical Inventory Annual Reports Due March 1

Facilities covered by Emergency Planning and Community Right-to-Know Act (EPCRA) requirements must submit an Emergency and Hazardous Chemical Inventory Form to the Local Emergency Planning Committee (LEPC), the State Emergency Response Commission (SERC), and the local fire department annually. Facilities provide either a Tier I or Tier II form. Most States require the Tier II form. Some states have specific requirements in addition to the federal Tier II requirements. Many accept Tier2 Submit.

State reporting requirements are available at

http://www.epa.gov/emergencies/content/epcra/tier2.htm#state

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The Bhopal Tragedy

- Understand the emergency procedures you are to take if the temperature or pressure increases quickly in vessels storing hazardous materials, especially those which are reactive.
- Encourage your management and technical group to have a discussion about the "worst case" for the facility you work in and what safeguards have to be maintained to prevent that scenario from occurring.
- Understand the "worst case scenario" and "layers of protection" for your facility!

Source: Process Safety Beacon 2009 to subscribe: http://www.aiche.org/CCPS/Publications/Beacon/index.aspx)

For more information:
RMP Guidance for worst-case scenario
EPA Safety alerts

EPA Announces Final Amendments to the Oil Spill Prevention, Control, and Countermeasure (SPCC) Rule



On November 5, 2009, the EPA Administrator signed a notice amending certain requirements of the Spill Prevention, Control, and Countermeasure (SPCC) rule in order to address additional areas of regulatory reform that have been raised by the regulated community. This action promulgates revisions to the December 2008 amendments as a result of EPA's review of comments and consideration of all relevant facts. EPA is either taking no action or providing minor technical corrections on the majority of the December 2008 provisions.

However, this action modifies the December 2008 rule by removing the provisions to: exclude farms and oil production facilities from the loading/ unloading rack requirements; exempt produced water containers at an oil production facility; and provide alternative qualified facilities eligibility criteria for an oil production facility. Additionally, because of the uncertainty surrounding the final amendments to the December 5, 2008, rule and the delay of the effective date, EPA will propose to extend the compliance date.

This rule is effective January 14, 2010.

Regulation: Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure Rule - Final Amendments

Additional information about the 2009 amendments

For More Information

Superfund, TRI, EPCRA, RMP & Oil Information Center - The Information Center can also answer questions related to Clean Air Act section 112(r) and RMP reporting requirements.

(800) 424-9346 or TDD (800) 553-7672 (703) 412-9810 or TDD (703) 412-3323 in the Washington, D.C. area Normal Hours of Operation:

Monday - Thursday 10:00 a.m. - 3:00 p.m. Eastern Time

Extended Hours of Operation (May, June, and July):

Monday - Friday 9:00 a.m. - 5:00 p.m. Eastern Time

Closed Federal Holidays

http://www.epa.gov/superfund/ contacts/infocenter/

Risk Management Program (RMP)
Reporting Center - The Reporting
Center can answer questions about
software or installation problems.
The RMP Reporting Center is available
from 8:00 a.m. to 4:30 p.m., Monday
through Friday, for questions on the
Risk Management Plan program.
(703) 227-7650 (phone)
RMPRC@epa.cdx.net (e-mail)

This newsletter provides information on the EPA Risk Management Program, EPCRA, SPCC/FRP and other issues relating to Accidental Release Prevention Requirements. The information should be used as a reference tool, not as a definitive source of compliance information. Compliance regulations are published in 40 CFR Part 68 for CAA section 112(r) Risk Management Program, 40 CFR Part 355/370 for EPCRA, and 40 CFR Part 112.2 for SPCC/FRP.

Risk Management Program (RMP) 2010 Training

The Environmental Protection Agency (EPA) is offering **FREE** Risk Management Program training, providing information about how to comply with the RMP reporting and emergency planning requirements. The instructors are experienced EPA staff with decades of collective RMP compliance assistance and inspection experience.

One-day training is being offered on three separate days:

March 9, 10, or 11, at the HAMMER Training Center, Richland, WA

Details and Registration: http://yosemite.epa.gov/R10/airpage.nsf/Enforcement/rmp_training